ABSTRACT

Various methods and apparatuses are described for a multiple wavelength light source. The multiple wavelength light source may be located in a central office to supply a first broad band of wavelengths for a one or more passive optical networks. The multiple wavelength light source generates a series of four or more pulses of light in the first broad band of wavelengths. Each pulse of light in that series has a different center wavelength. The series of pulses of light in the first broad band of wavelengths may be repeated at a channel data rate of an optical receiver at a subscriber's location.